CLAIMS

1. A microarray with target probes for detecting drug-resistant HBV on a support.

2. The microarray of claim 1, wherein the support is a slide glass, a membrane, a semiconductive chip, a silicon, or a gel.

3. The microarray of claim 1, wherein the target probes are cDNA, oligonucleotides, DNA analogues, peptides, or proteins.

4. The microarray of claim 1, wherein the target probes comprise oligonucleotides having nucleotide sequences that can specifically bind to a target gene that induces resistance to lamivudine and/or famciclovir.

5. The microarray of claim 4, wherein the target probes comprise oligonucleotides including the nucleotide sequences of point mutations at codons 528, 529, and 514 in domain B and at codons 552, 548, and 555 in domain C of a HBV DNA polymerase gene that induce resistance to lamivudine and/or oligonucleotides including the nucleotide sequences of point mutations at codons 528 and 529 in domain B and at codon 555 in domain C of the HBV DNA polymerase gene that induce resistance to famciclovir.

6. The microarray of claim 5, wherein the target probes comprise at least one kind of oligonucleotides including the nucleotide sequences of SEQ ID NOs. 7 through 47.

7. The microarray of claim 1 or 6, further comprising negative control probes for detecting the presence and ratio of more than one type, detecting positive and false positive probes by measuring a background of non-specific cross-hybridization, discriminating homozygotes and heterozygotes, and/or genotyping.

8. The microarray of claim 7, wherein the negative control probes are prepared by substituting, inserting, or deleting at least one nucleotide sequence among the nucleotide sequences of the target probes not to be hybridized with a target product.

9. The microarray of claim 8, wherein the negative control probes comprise at least one kind of oligonucleotides including the nucleotide sequences of SEQ ID NOs. 48 through 83.

10. The microarray of any one of claims 1 through 6, wherein quality control probes labeled with a fluorescent material having a different excitation/emission wavelength from a fluorescent material used to label the target product and target probes are included in each spot.

11. The microarray of claim 10, wherein the quality control probes are oligonucletides having the same sequences as the target probes that have at least one nucleotide labeled with a fluorescent material, or arbitrary sequences that have at least one nucleotide labeled with a fluorescent material.

12. The microarray of claim 10, wherein the fluorescent material used to label the quality control probes is at least one selected from the group consisting of Pyrene, Cyanine 2, GFP, Calcein, FITC, Alexa 488, FAM, Fluorescein Chlorotriazinyl, Fluorescein, Rhodamine 110, Oregon Green, Magnesium Green, Calcium Green, JOE, Cyanine 3, Tetramethylrhodamine, TRITC, TAMRA, Rhodamine Phalloidin, Pyronin Y, Lissamine, ROX, Calcium Crimson, Texas Red, Nile Red, Cyanine 5, and Thiadicarbocyanine.

13. The microarray of claim 10, further comprising negative control probes for detecting the presence and ratio of more than one type and detecting positive and false positive probes by measuring a background of non-specific cross-hybridization, discriminating homozygotes and heterozygotes, and/or genotyping, wherein the negative control probes and quality control probes are included in each spot.

14. Use of the microarray of any one of claims 1 through 13 to simultaneously perform at least one process selected from the group consisting of detecting a drug-resistant HBV, quality controlling probe immobilization and hybridization, detecting the presence and ratio of more than one type, detecting positive and false positive probes by measuring a background of non-specific cross-hybridization, discriminating homozygotes and heterozygotes, and genotyping.

15. A HBV diagnostic kit comprising the microarray of any one of claims 1 through 13.

16. A primer or probe for detecting HBV drug resistance, the primer or probe comprising one of nucleotide sequences having SEQ ID NOs. 1 through 47.

17. A negative control probe for detecting the presence and ratio of more than one type, detecting positive and false positive probes by measuring a background of non-specific cross-hybridization, discriminating homozygotes and heterozygotes, and/or genotyping, the negative control probe being prepared by substituting, inserting, or deleting at least one nucleotide sequence among the nucleotide sequences of the target probes for detecting drug-resistant HBV that have one of nucleotide sequences of SEQ ID NOs. 7 through 47.

18. The negative control probe of claim 17 having one of nucleotide sequences of SEQ ID NOs. 48 through 83.